

# FOR ROOFS · WALLS · FLOORS



# FOAMGLAS



When you insulate with FOAMGLAS . . . you insulate for good!

**PITTSBURGH CORNING CORPORATION**

632 DUQUESNE WAY · PITTSBURGH 22, PENNSYLVANIA



# PC FOAMGLAS . . . the permanent insulation

## Here's the Secret of Permanent Insulation

Look at the picture for a minute. You can see that PC Foamglas is composed of tiny glass cells . . . millions of them. In these closed cells—filled with sealed-in air—lies the secret of the material's excellent insulating properties.

Used as an insulating material, PC Foamglas withstands humidity, helps to maintain desired temperature levels, to minimize condensation. When installed according to our specifications for recommended applications, PC Foamglas retains its original insulating efficiency *permanently*.



### Easy to Cut and Shape

The strong, rigid blocks of PC Foamglas can be quickly and easily cut and shaped to fit around openings or projections, with ordinary tools, right on the job.

The unique qualities of PC Foamglas Insulation will doubtless recommend it to you for use on roofs, in walls, floors, ceilings, partitions and for industrial equipment and piping.

Every architect, engineer and plant maintenance official should know why PC Foamglas Insulation is so efficient—trouble-free—economical.

On the following pages you will find full engineering information on PC Foamglas, with helpful, explanatory tables, lists and charts.

### PERMANENT INSULATION VALUE

PC Foamglas will not absorb moisture. It eliminates the necessity of expensive repairs, commonly caused by deterioration of the insulation material resulting from dampness. Its insulation value remains constant indefinitely, and it is, therefore, superior to other insulating materials.

### MOISTUREPROOF

Tests show that PC Foamglas, with its millions of tightly sealed cells, is vaporproof. Complete immersion tests in water will readily demonstrate its character. Should a finished roof surface be punctured in service, no water will travel into or through the Foamglas Insulation to result in widespread damage and impair the performance of the insulation.

### NONCOMBUSTIBLE

As a true glass, Foamglas is noncombustible. This characteristic is especially valuable where it is used as insulation on flat roofs, over materials which are not fire-resistant.

PC Foamglas is listed by Underwriters' Laboratories, Inc., under Label Service, Guide No. 540 IO, January 21, 1948, File R 2844.



## LIGHT WEIGHT

PC Foamglas has a specific gravity of 0.160, a weight of 9 to 11 pounds per cubic foot. Because it is impervious to water and consists of sealed cells, it is buoyant. Thus it is applicable to various types of floats, life rafts, lifeboats, industrial floats, etc. Its weight is comparable to that of cork or commercial balsawood.

## ODORLESS — VERMINPROOF

Once it is installed, PC Foamglas does not absorb or emit objectionable odors. Vermin won't gnaw their way through Foamglas. And it provides no food or nesting material for rodents or other pests.

## RIGID

PC Foamglas is more rigid and stronger than most materials regularly used for insulation and buoyancy. It will support its own weight in any type of wall construction without danger of crushing or packing. This makes it ideal for building up self-supporting partitions or walls of solid insulating material. It should not, however, be used as a load-bearing wall.

## DURABLE

PC Foamglas is highly durable. This inorganic material is not harmed by most acid atmospheres or solutions that would quickly deteriorate many other insulating or buoyant materials. Its properties include high resistance to crushing and bending.



This re-roofing job includes permanent insulation. Roofers found that the big light slabs were easy to handle, that they made a firm even base for roofing felt.

### PROPERTIES OF PC FOAMGLAS INSULATION

Absorption .....	0
Adsorption (water).....	.005 lbs. per sq. ft. of surface area
Alkalinity .....	pH = 7.5
Capillarity .....	0
Coefficient of	
Expansion... ..	.0000045 (in., ft., etc.) per ° F. temp. change
Composition.....	A true glass—completely inorganic
Compressive Strength .....	150 lbs. per sq. in.
Flexural Strength (Modulus of Rupture) .	130 lbs. per sq. in.
K (Conductivity at 50° F.	
Mean Temp.).....	0.40 B.t.u./Hr./Sq. Ft./° F./In.
Moisture Vapor Transmission.....	0 (impervious)
Shear Strength.....	64 lbs. per sq. in.
Specific Heat.....	0.200 B.t.u. per lb.
Tensile Strength.....	84 lbs. per sq. in.
Weight.....	10.0 lbs. per cu. ft.

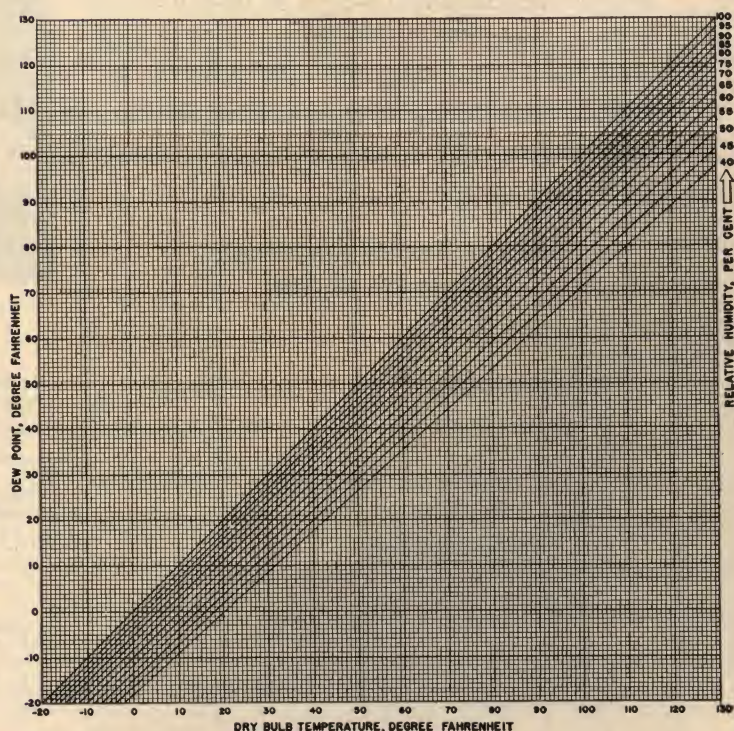
NOTE: Values are average for design purposes based on the weight of 10 lbs. per cu. ft. Weight varies from 9 to 11 lbs. per cu. ft.

### SIZES AND PACKING

Standard Sizes	Pieces Per Carton	Sq. Ft. Per Carton	Approximate Weight Per Carton
12 x 18 x 2	12	18	32.5 lbs.
12 x 18 x 3	8	12	32.5 lbs.
12 x 18 x 4	6	9	33.0 lbs.
12 x 18 x 5	6	9	40.5 lbs.

NOTE: Dimensions for all size blocks are subject to a tolerance of  $\frac{1}{8}$ " plus or minus.

### DEW POINT TEMPERATURES FOR VARIOUS AIR TEMPERATURES AND RELATIVE HUMIDITIES





# PC FOAMGLAS INSULATION FOR FLAT DECK ROOFS

**The only material of its kind!**

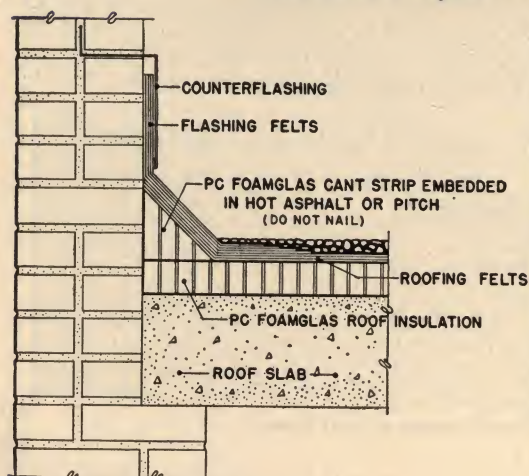
## PC Foamglas Insulation for Roofs

PC Foamglas is not a fiber, not a wool, not a board, not a batt. Foamglas is cellular glass, in the form of big, lightweight blocks, each composed of millions of minute, air-filled closed glass cells. And as such, Foamglas has excellent insulating properties. On roofs, of all sorts of buildings, PC Foamglas is helping to maintain required temperature levels, to minimize condensation and to withstand humidity from Canada to Mexico.

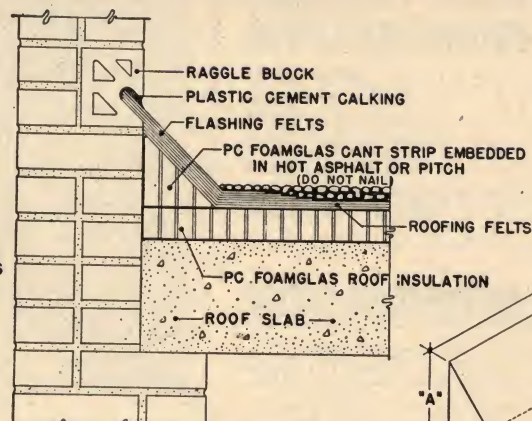
PC Foamglas is resistant to moisture, fumes, vapor and acid atmosphere—elements that frequently impair the insulating value of other materials.

**CANT STRIPS** made of PC Foamglas are light and strong, set up quickly and are easily handled. They can be cut to fit accurately in corners, around pipes and other obstructions and against irregularities in parapets—right on the job—with ordinary tools. The cross sections on this page show how PC Foamglas cant strips should be installed. Being Foamglas, these cant strips do not warp, shrink, swell or rot—assuring permanent, satisfactory service.

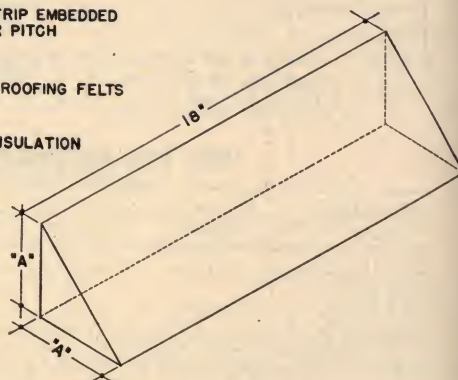
**When you insulate with FOAMGLAS  
you insulate for good!**



DETAIL OF CANT STRIP USED  
WITH COUNTERFLASHING



DETAIL OF CANT STRIP USED  
WITH RATTLE BLOCK



NOTE: "A" dimensions are 4" x 4", 4 3/8" x 4 3/8" and 4 3/4" x 4 3/4".







# FOAMGLAS INSULATION FOR FLAT DECK ROOFS

## SPECIFICATIONS FOR FOAMGLAS INSTALLATION ON FLAT DECK ROOFS (Slope not exceeding 2" to 1'-0")

The following specifications are for use in Normal Temperature Applications, 50° to 120° F. Where temperatures over 120° F. are to be maintained, write us for special application specifications.

<b>General Conditions</b>	The "General Conditions" of the contract are a part of these specifications.
<b>Scope of the Work</b>	This contractor shall furnish all labor and material to install all PC Foamglas Insulation on roof decks as noted on the drawings, or as listed hereunder. This shall include the furnishing and application of (asphalt) (pitch)—whichever is required for the application of any membrane under the insulation and for the finished roofing—and any other materials necessary for a complete and satisfactory installation.
<b>Insulation Material</b>	Shall be PC Foamglas Insulation as manufactured by the Pittsburgh Corning Corporation in standard slabs 12" x 18" and shall be . . . inch thick (2", 3", 4" or 5") laid in (one), (two) layer(s). (Indicate total thickness of insulation required where two layers are used.)
<b>Preparation of Roof Decks to Receive Insulation</b>	<p><b>GENERAL:</b> The surface of all roof decks shall be smooth and level, without depressions. Where wood decks are used, all loose or springy boards shall be properly nailed in place before any insulation is laid. All decks shall be broomed clean, free from dirt, loose material and thoroughly dry.</p> <p><b>WOOD DECK:</b> Apply sheathing paper, unsaturated felt or (tarred) (asphalt) roofing felt (indicate which type membrane required), which shall be installed according to best roofing practice before insulation is laid.</p> <p><b>PRECAST CONCRETE OR GYPSUM SLABS OR GYPSUM PLANK DECKS:</b> All joints between (slabs) (planks) shall be properly grouted and struck flush. Membrane (shall) (shall not) be used under insulation. Where membrane is used, it shall be specified as above under "Wood Decks." Where membrane is not specified, the insulation shall be adhered to (slabs) (planks) by spot-mopping in place with hot (asphalt) (pitch). No mopping shall be permitted over joints of (slabs) (planks). Where insulation is spot-mopped in place with hot asphalt, the deck shall be coated first with asphalt primer. No primer is required for spot-mopping if pitch is used.</p> <p><b>MONOLITHIC CONCRETE OR GYPSUM DECKS:</b> No membrane is required under the insulation. If asphalt is to be used for laying the insulation, the decks shall be coated with asphalt primer. No primer is required if pitch is used.</p> <p><b>STEEL DECKS:</b> Steel decks shall not be subject to excessive deflection. Deck shall be free from any projections above the level of the steel deck such as bolt heads, etc., and shall be without holes through which the hot bitumen used for the laying of the insulation might drip. Decks shall have shop coat of paint.</p> <p>No membrane required under the insulation.</p> <p>If decks are painted no primer is necessary before applying asphalt.</p>
<b>Application of Insulation</b>	<p><b>GENERAL:</b> Caution—Foamglas Insulation shall not be nailed in place. Foamglas Insulation will not absorb water; however, in order to prevent improper bond between the roofing materials and the insulation, it is necessary to keep the Foamglas dry before, during and after application.</p> <p>Only as much Foamglas Insulation shall be applied in any one day as can be covered with finished roofing the same day.</p> <p>Insulation shall be laid in parallel courses, staggered to break joints. Where two layers are used, the second layer shall break joints with the first.</p> <p>Where roof decks meet vertical surfaces, such as parapets, etc., the Foamglas shall be cut and fitted snugly. Where Foamglas finishes against cant strips it shall be beveled to a neat fit.</p> <p><b>APPLICATION OF FOAMGLAS:</b> Where felts impregnated with coal tar pitch are used, Foamglas Insulation shall be laid with coal tar pitch. Where asphalt impregnated felts are used, Foamglas Insulation shall be laid with asphalt.</p> <p>Foamglas Insulation shall be firmly imbedded in hot (asphalt) (pitch) mopped on deck. Mop only area on which insulation can be laid immediately. All insulation shall be laid with tightly butted joints. When more than one layer is used, the additional layers shall be laid in the same manner as the first layer.</p> <p>Protect completed insulation from weather until finished roofing is applied.</p> <p>For application of finished roofing, mop insulation with uniform coat of hot (asphalt) (pitch). Mop only area on which roofing can immediately be laid.</p>
<b>Finished Roofing</b>	The finished roofing shall be of type selected by the architect and shall be laid in accordance with the manufacturer's recommendations. For walk-on roofs a minimum of three plies of 15 lb. Roofing Felt shall be applied over the Foamglas Insulation.

NOTE: Where roof slope exceeds 2" to 1'-0", write us for recommendations.





When problems of temperature control, or condensation arise in connection with building construction, you will find it well worth-while to investigate PC Foamglas . . . the new insulating material for core wall construction.

It will not shrink, swell, warp or rot. It is verminproof and fireproof. Its insulation properties are permanent.

PC Foamglas may be used as wall insulation in connection with all types of masonry and concrete building construction, with whatever type of tile, block or brick facing you desire.

Blocks of Foamglas will support many times their own weight without danger of cracking or crushing. They cannot settle, pack down, or absorb moisture. In consequence, Foamglas eliminates expensive repairs and replacements often necessitated by deterioration of other insulating materials.

## SPECIFICATIONS FOR INSULATING CORE WALLS

The following specifications and details are for use in normal temperature applications, 50° to 120° F. Where temperatures over 120° F. are to be maintained, write us for special application specifications.

### INSULATION:

Shall be PC Foamglas Insulation as manufactured by the Pittsburgh Corning Corporation in standard slabs 12" x 18" and shall be . . . inches thick (2", 3", 4" or 5").

### MASONRY WORK:

All masonry work for core walls shall be laid plumb, level, straight, true to dimensions, and shall be laid with full mortar joints. Joints on the inside surface of the masonry walls shall be "plain cut." These surfaces shall also be free of any stray mortar. Masonry work and PC Foamglas Insulation shall be erected with the following procedure:—First, lay a lift of the exterior wythe. Second, lay a lift of the Foamglas. Third, lay a lift of the interior wythe. The height of one lift shall be equal to the vertical distance between wall ties.

### WALL TIES:

Shall be of non-corrosive metal and shall be . . . type. (Insert wall tie specification here).

One wall tie shall be required for every . . . sq. ft. (or, sq. in.) of wall surface.

Wall ties shall be spaced every . . . course (or . . . inches apart vertically), and every . . . inches apart horizontally.

### ASPHALTIC CEMENT:

Shall be of the following mix, measured by volume: 6 parts PC Asphalt Emulsion . . . 1 part Portland cement.

Make a paste of cement and water and then add the asphalt emulsion. Mix thoroughly, increasing the water content sufficiently to make mix workable under trowel. Batch size shall be such that can be used within one hour of mixing. All asphaltic cement not used within this time shall be discarded and no retempering shall be permitted. Asphaltic cement shall not be applied when temperature is below 40° F.

### LAYING INSULATION:

PC Foamglas Insulation shall be laid plumb, level and true to dimensions. The insulation shall be laid with asphaltic cement joints. Joints shall finish  $\frac{1}{8}$ " to  $\frac{1}{8}$ " thick. When laying slabs apply only enough pressure to guarantee good, full joints. To assure tight joints, point joints with asphalt cement after slabs are set. Do not disturb previously placed slabs. Where slabs are disturbed, remove same and reset with fresh asphaltic cement. Where it is necessary to cut or fabricate the Foamglas to fit the spacing of wall ties, openings, etc., all joints including the wall tie joints shall be sealed with asphaltic cement.

For proper alignment of Foamglas slabs, asphaltic cement gobs shall be used between the interior surface of the outside wythe and the insulation. (See details). The space between exterior wythe and the insulation shall be  $\frac{1}{4}$ " or as may be required for proper alignment of Foamglas. Four gobs per slab shall be required. Apply only enough lateral pressure against the Foamglas to permit absolute contact between gobs and the exterior wythe.

**NOTE:** Cement and gypsum plasters, or other materials which shrink in setting, cannot be applied directly to Foamglas. Therefore, as recommended in this catalog, tile or masonry veneer shall be used as interior finish over this insulation.



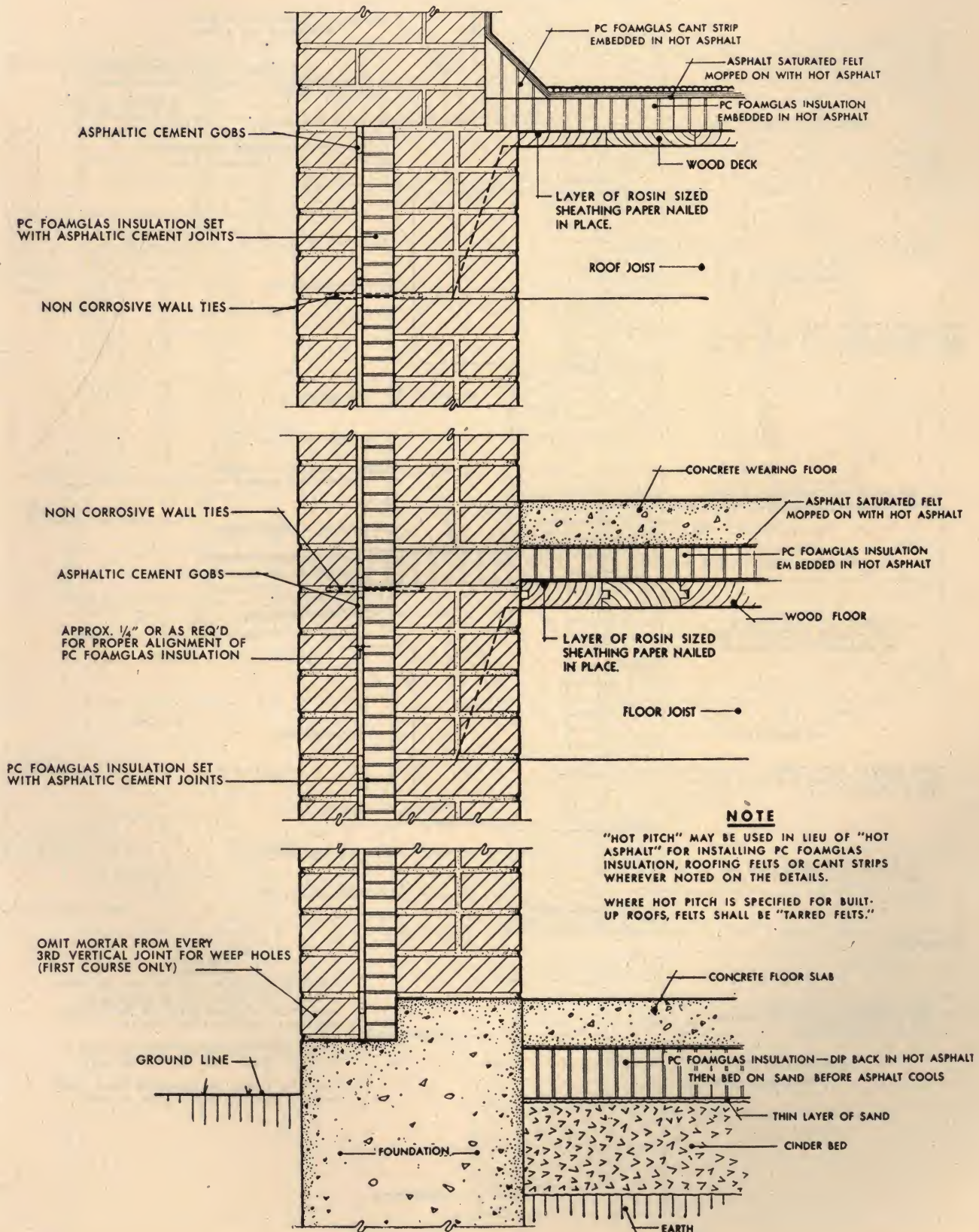
# FOAMGLAS INSULATION FOR CORE WALLS

## HEAT TRANSMISSION (U) THROUGH VARIOUS TYPES OF CORE WALLS INSULATED WITH FOAMGLAS

WALL TYPE		CONSTRUCTION	WITH 3/4" PLASTER FINISH					WITH NO INTERIOR FINISH				
			INSULATED WITH FOAMGLAS					INSULATED WITH FOAMGLAS				
			2"	3"	4"	5"	6"	2"	3"	4"	5"	6"
(U) VALUES ARE EXPRESSED IN B. T. U. PER. SQ. FT. PER DEG. FAHR. TEMP DIFFERENCE PER HOUR. CONDITIONS ASSUMED: MEAN TEMP. 50 DEG. FAHR. STILL AIR INSIDE & 15 M. P. H. WIND VELOCITY OUTSIDE.												
BRICK												
4" FACE BRICK & 4" COMMON BRICK			.14	.10	.082	.068	.058	.14	.11	.083	.069	.059
4" FACE BRICK & 8" COMMON BRICK			.12	.095	.077	.065	.056	.13	.097	.078	.065	.056
4" FACE BRICK & 12" COMMON BRICK			.11	.088	.072	.061	.053	.12	.090	.074	.062	.054
BRICK & CONCRETE												
4" FACE BRICK & 6" CONCRETE			.14	.11	.084	.069	.059	.15	.11	.086	.070	.060
4" FACE BRICK & 10" CONCRETE			.14	.10	.082	.068	.058	.14	.11	.083	.069	.059
4" FACE BRICK & 16" CONCRETE			.13	.10	.079	.066	.056	.13	.10	.080	.067	.057
BRICK & HOLLOW TILE												
4" FACE BRICK & 4" HOLLOW TILE			.13	.10	.080	.068	.057	.14	.10	.082	.068	.058
4" FACE BRICK & 6" HOLLOW TILE			.12	.094	.076	.064	.055	.13	.097	.078	.065	.056
4" FACE BRICK & 8" HOLLOW TILE			.12	.094	.076	.064	.055	.13	.096	.077	.065	.056
4" FACE BRICK & 10" HOLLOW TILE			.12	.094	.076	.064	.055	.13	.096	.077	.065	.056
HOLLOW TILE & STUCCO												
4" HOLLOW TILE, 4" HOLLOW TILE & 1" STUCCO			.12	.094	.076	.064	.055	.13	.097	.078	.065	.056
4" HOLLOW TILE, 6" HOLLOW TILE & 1" STUCCO			.12	.090	.073	.063	.054	.12	.091	.074	.063	.054
4" HOLLOW TILE, 8" HOLLOW TILE & 1" STUCCO			.11	.089	.073	.062	.053	.12	.091	.074	.062	.054
CONCRETE & HOLLOW TILE												
4" CONCRETE & 4" HOLLOW TILE			.14	.10	.081	.067	.058	.14	.10	.083	.068	.058
4" CONCRETE & 6" HOLLOW TILE			.13	.096	.078	.065	.056	.13	.098	.079	.066	.057
4" CONCRETE & 8" HOLLOW TILE			.13	.095	.077	.065	.056	.13	.097	.078	.065	.056
STONE & HOLLOW TILE												
4" STONE & 6" HOLLOW TILE			.13	.096	.078	.065	.056	.13	.098	.079	.066	.057
4" STONE & 8" HOLLOW TILE			.13	.095	.077	.065	.056	.13	.097	.078	.065	.056
4" STONE & 10" HOLLOW TILE			.12	.095	.077	.064	.055	.13	.097	.078	.065	.056
4" STONE & 12" HOLLOW TILE			.11	.088	.072	.061	.053	.12	.090	.074	.062	.054
CONCRETE BLOCK & HOLLOW TILE												
8" CONCRETE BLOCKS & 4" HOLLOW TILE			.12	.095	.077	.064	.055	.13	.097	.078	.065	.056
8" CONCRETE BLOCKS & 6" HOLLOW TILE			.12	.090	.074	.062	.054	.12	.092	.075	.063	.054
8" CONCRETE BLOCKS & 8" HOLLOW TILE			.12	.089	.073	.062	.054	.12	.091	.074	.063	.054
BRICK & CINDER BLOCK												
4" FACE BRICK & 8" CINDER BLOCKS			.12	.094	.076	.064	.055	.13	.097	.078	.065	.056
4" FACE BRICK & 12" CINDER BLOCKS			.12	.092	.075	.063	.055	.12	.094	.076	.064	.055
BRICK & CONCRETE BLOCK												
4" FACE BRICK & 8" CONCRETE BLOCKS			.13	.10	.080	.068	.057	.14	.10	.082	.068	.058
4" FACE BRICK & 12" CONCRETE BLOCKS			.13	.098	.079	.066	.057	.13	.10	.080	.067	.057



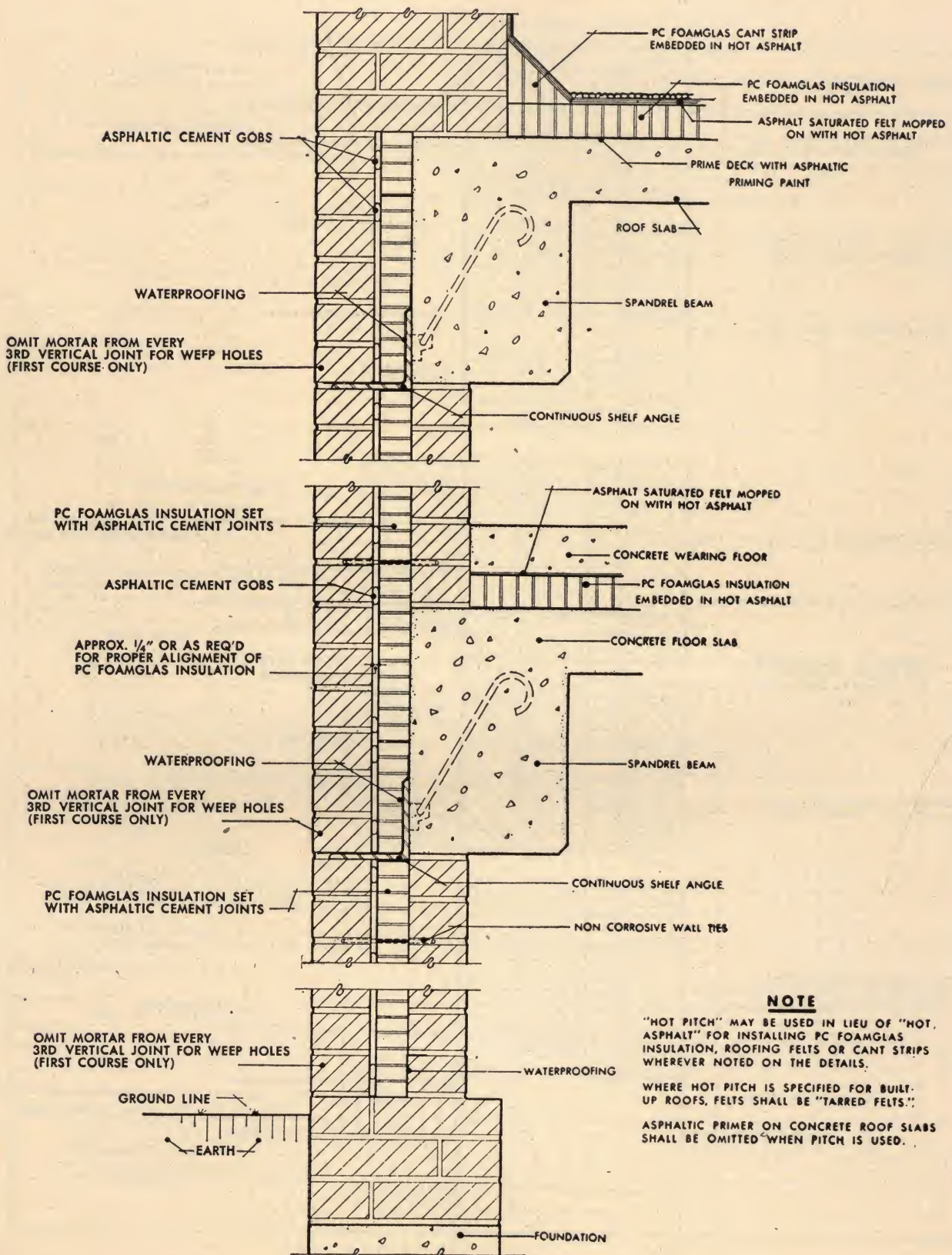
## PC FOAMGLAS INSULATION IN LOAD BEARING TYPE CORE WALL CONSTRUCTION





# FOAMGLAS INSULATION FOR CORE WALLS

## PC FOAMGLAS INSULATION IN PANEL TYPE CORE WALL CONSTRUCTION



### NOTE

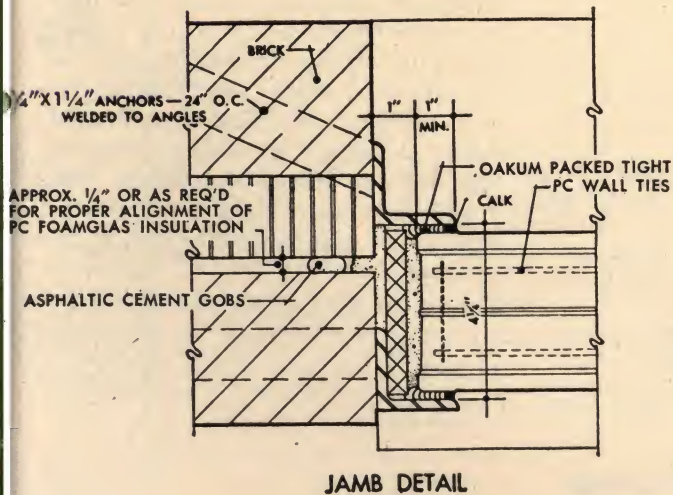
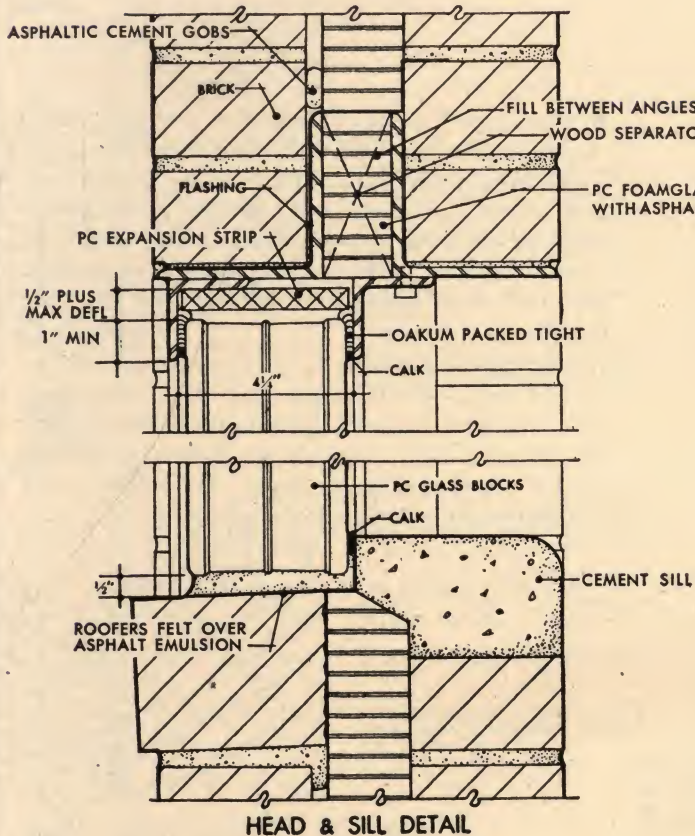
"HOT PITCH" MAY BE USED IN LIEU OF "HOT, ASPHALT" FOR INSTALLING PC FOAMGLAS INSULATION, ROOFING FELTS OR CANT STRIPS WHEREVER NOTED ON THE DETAILS.

WHERE HOT PITCH IS SPECIFIED FOR BUILT-UP ROOFS, FELTS SHALL BE "TARRED FELTS."

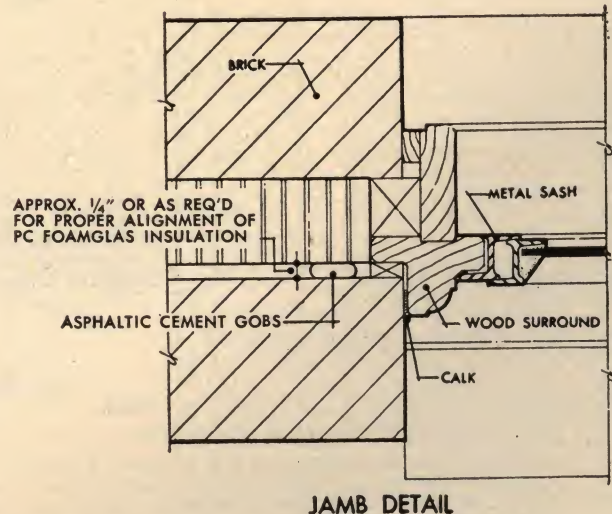
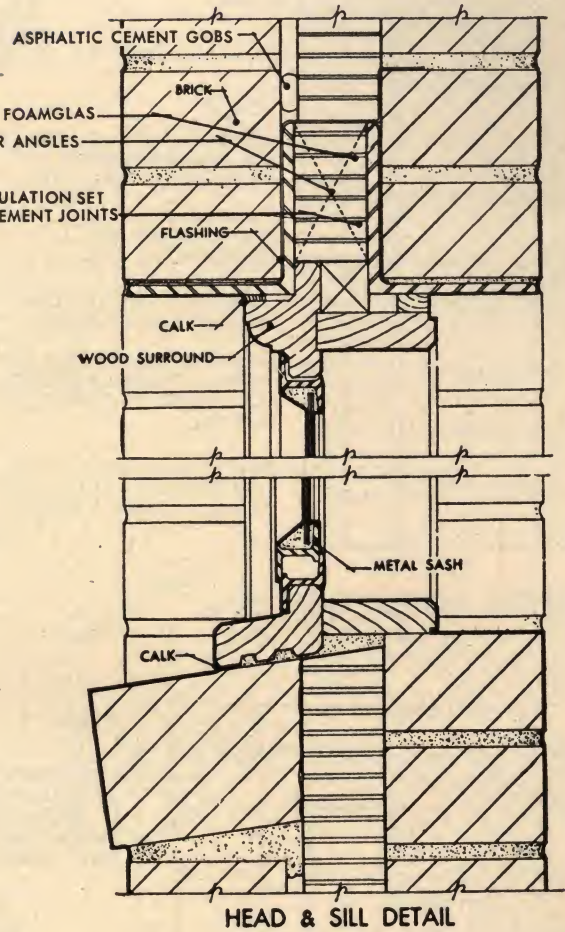
ASPHALTIC PRIMER ON CONCRETE ROOF SLABS SHALL BE OMITTED WHEN PITCH IS USED.



## GLASS BLOCK PANELS IN CORE WALL CONSTRUCTION



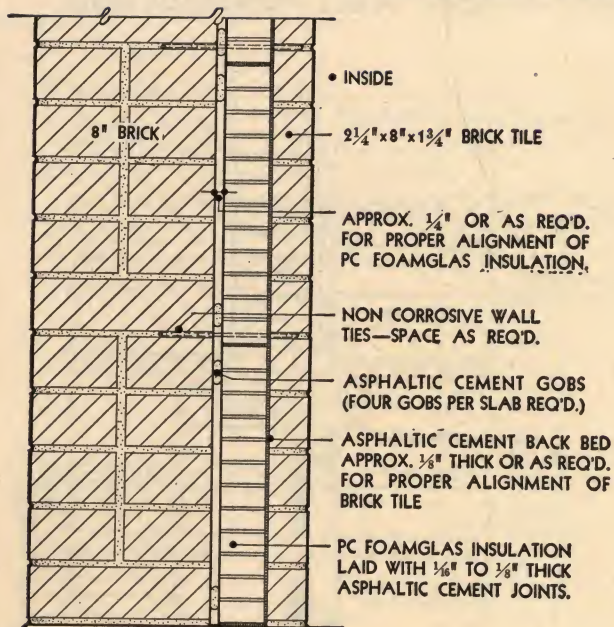
## METAL SASH IN CORE WALL CONSTRUCTION





# FOAMGLAS INSULATION FOR CORE WALLS

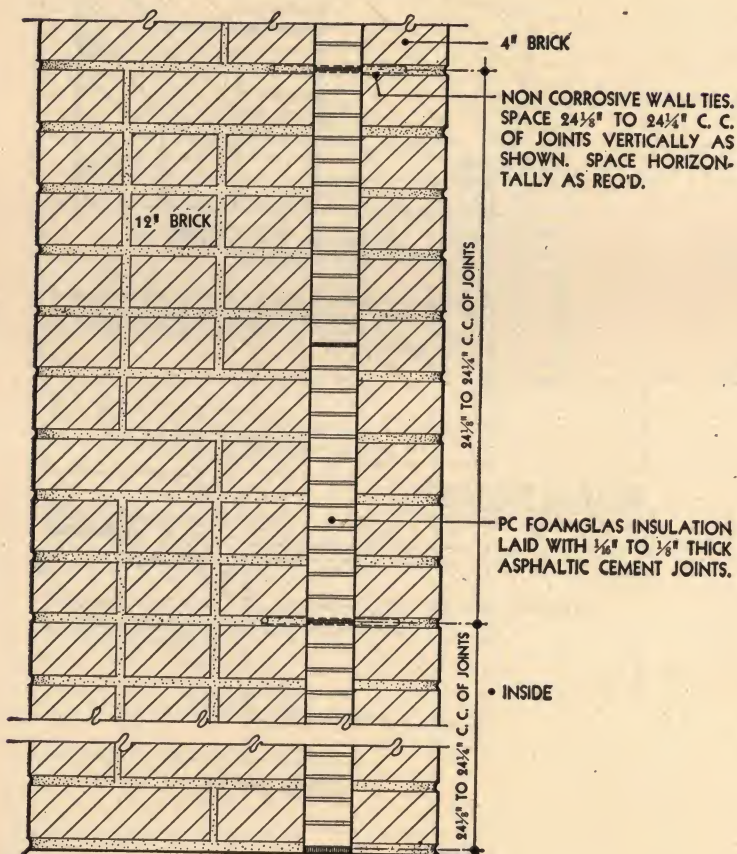
## SPECIAL TYPES OF WALL APPLICATIONS



TYPICAL WALL TYPE "A"

● Wall Type "A" varies from other core wall details shown, in that the inner wall is considered a veneer. This veneer wall, having little stability during erection, requires additional bond between it, the Foamglas, and the outer masonry wythe. This additional bond is obtained with the use of asphaltic cement gobs and back bedding as well as wall ties (see detail).

In this type of construction the exterior wall can be erected before the Foamglas and inner veneer are laid, or it may be laid in lifts of approximately 24". The detail is also adaptable for insulating and veneering existing masonry walls. In existing work corrugated wall ties should be used.\*



TYPICAL WALL TYPE "B"

● Wall Type "B" is also different from other core wall details shown. This type of wall incorporates an interior veneer wall with considerable stability. This detail shows no space between Foamglas and masonry walls. This is permissible where the inside surface of the exterior wall can be laid plumb, level and straight, and where the interior wall surface does not necessarily need to be perfectly flush.

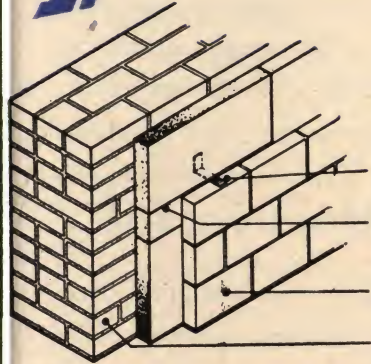
For ease of erection, this type wall shall be laid up in lifts of 24 1/8" to 24 1/4" c.c. of joints.\*

\*See "Specifications" on Page 7 for wall ties, laying of masonry, asphaltic cement mix, and other data pertaining to these special types of wall applications.



## METHODS OF FITTING WALL TIES

1.



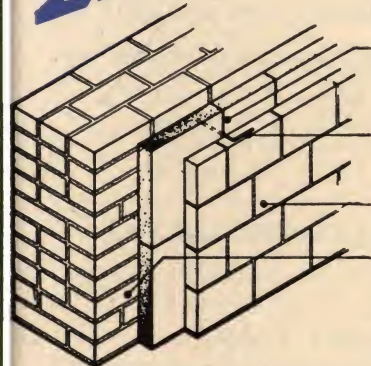
CORRUGATED OR RIBBED TYPE WALL TIES. SPACE AS REQUIRED.

CUT PC FOAMGLAS INSULATION SLAB AT WALL TIE LEVEL AS SHOWN AND SET AS TWO INDIVIDUAL UNITS

GLAZED TILE OR OTHER MASONRY VENEER

EXISTING MASONRY WALL OR NEW WALL IN PLACE BEFORE INSULATION & MASONRY VENEER ARE LAID

2.



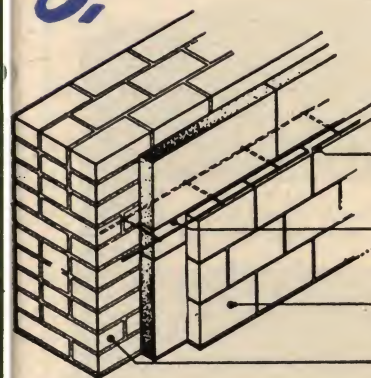
CUT PC FOAMGLAS INSULATION SLAB IN VERTICAL LINE WITH WALL TIE AS SHOWN AND SET AS TWO INDIVIDUAL UNITS

"Z" TYPE WALL TIES. SPACE VERTICALLY IN MATCHED MASONRY MORTAR JOINTS AS SHOWN

GLAZED TILE OR OTHER MASONRY VENEER

MASONRY WALL IN PLACE BEFORE INSULATION & MASONRY VENEER ARE LAID

3.



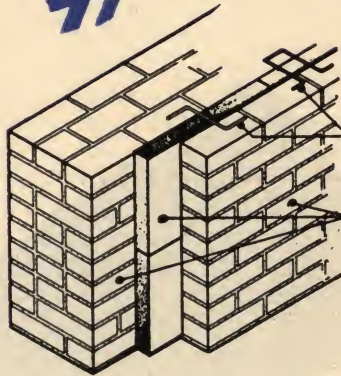
CONTINUOUS WIRE MESH WALL TIES. SPACE VERTICALLY IN MATCHED MASONRY MORTAR JOINTS AS SHOWN.

CUT PC FOAMGLAS INSULATION SLABS AT WALL TIE LEVEL AS SHOWN AND SET AS TWO INDIVIDUAL COURSES

GLAZED TILE OR OTHER MASONRY VENEER

MASONRY WALL IN PLACE BEFORE INSULATION & MASONRY VENEER ARE LAID

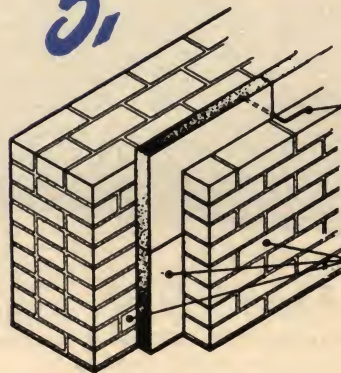
4.



"Z" OR "U" TYPE WALL TIES. SPACE VERTICALLY IN MATCHED MASONRY MORTAR JOINTS AS SHOWN.

RAISE EXTERIOR BRICK WALL, PC FOAMGLAS INSULATION AND INTERIOR BRICK WALL IN LIFTS OF  $24\frac{1}{4}"$  TO  $24\frac{3}{4}"$  C. C. OF JOINTS

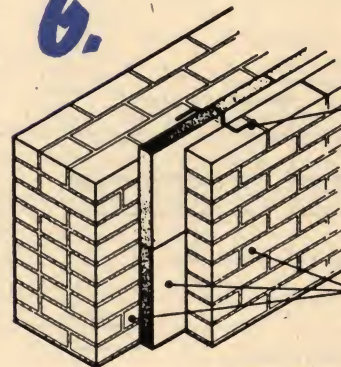
5.



"Z" TYPE WALL TIES. SPACE WALL TIES  $36\frac{1}{4}"$  TO  $36\frac{3}{4}"$  C. C. HORIZONTALLY SO THAT THEY WILL OCCUR IN ALTERNATE VERTICAL JOINTS OF PC FOAMGLAS INSULATION SLABS. SPACE VERTICALLY IN MATCHED MASONRY MORTAR JOINTS AS SHOWN.

EXTERIOR & INTERIOR MASONRY WALL SHALL BE LAID IN LIFTS OF AS NEAR  $24\frac{1}{4}"$  TO  $24\frac{3}{4}"$  C. C. OF JOINTS AS IS PRACTICABLE.

6.



"Z" TYPE WALL TIES NEAR TOP OR BOTTOM OF PC FOAMGLAS INSULATION SLAB MAY BE SET IN GROOVE AS SHOWN AND SEALED WITH SAME MATERIAL USED FOR FOAMGLAS JOINTS. GROOVE DEPTH SHOULD NOT EXCEED  $1\frac{1}{2}"$ . SPACE WALL TIES VERTICALLY IN MATCHED MASONRY MORTAR JOINTS AS SHOWN.

EXTERIOR MASONRY WALL, PC FOAMGLAS INSULATION AND INTERIOR MASONRY WALL SHALL BE LAID IN LIFTS OF APPROXIMATELY 2 FEET

## GENERAL NOTES

- Specifications for wall ties and spacing of same vary with building locale and local building code requirements.
- PC Foamglas Insulation readily adapts itself to these varying conditions because it is easy to cut and shape. It can be cut with a cheap saw, a roofer's knife or a mason's trowel.
- These details show several methods of fitting Foamglas slabs to various types of wall ties and wall tie spacing.

Any one or a combination of these methods can be used.

- Building codes, in general, require one wall tie for a given area of wall surface. In order to avoid confliction with the individual building code requirements, the actual dimensions for wall tie spacing have been omitted from the details wherever possible.
- All joints created in fitting the insulation around wall ties shall be filled with the same material used in the joints of the whole Foamglas slabs.



# FOAMGLAS INSULATION FOR FLOORS



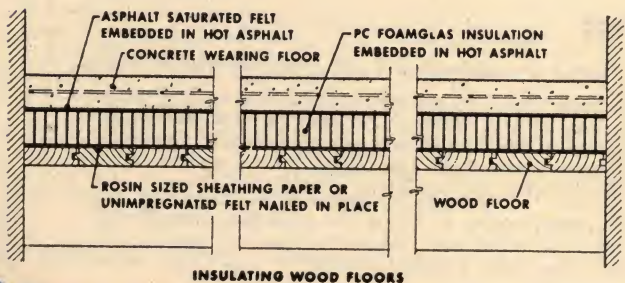
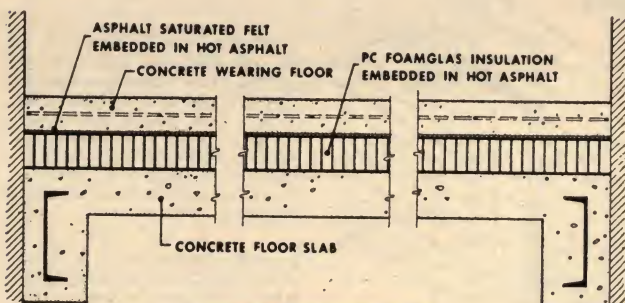
This hand truck, carrying the 400 lb. barrel, was dropped 100 times on the concrete cover floor without any damage to the Foamglas Insulation.

- This new, trouble-free insulation for floors is light, strong, economical. It is impervious to deteriorating elements that attack other insulating materials, maintains its insulating efficiency indefinitely.

This cellular floor insulating material—PC Foamglas—should enjoy general acceptance among plant managers because of its permanent insulating efficiency and its ability to carry weights much heavier than normal floor loads.

## TYPICAL INSTALLATIONS

- This is how PC Foamglas should be applied to insulate two kinds of floors which are widely used in industrial buildings. Recommendations for installing Foamglas for floors on ground are available upon request.





## SPECIFICATIONS FOR INSULATING FLOORS

The following specifications and details are for use in normal temperature applications, 50° to 120° F. Where temperatures over 120° F. are to be maintained, write us for special application specifications.

### INSULATION:

Shall be PC Foamglas Insulation as manufactured by the Pittsburgh Corning Corporation in standard slabs 12" x 18" and shall be .... inches thick (2", 3", 4" or 5") laid in (one) (two) layer(s). (Indicate total thickness required where two layers are used.)

### PREPARATION OF FLOORS:

**WOOD FLOORS:** The surface of all wood floors to be insulated shall be reasonably smooth and level, without depressions. All loose or springy boards shall be properly nailed in place. Floors shall be broomed clean, free from dirt, loose material, and thoroughly dry before proceeding. Over all wood floors to be insulated apply a layer of rosin-sized sheathing paper or unsaturated felt, lapping the edges at least 3" and nailing along the edges to hold in place until the insulation is laid.

**CONCRETE FLOORS:** All new concrete floor slabs to be insulated shall be thoroughly cured. All floors shall be reasonably smooth and level, without depressions, and shall be broomed clean and free of grease or dirt.

### LAYING INSULATION:

**GENERAL:** PC Foamglas Insulation shall be laid in parallel courses, staggered to break joints. Where

two layers are used, the second layer shall break joints with the first. All insulation shall be laid with tightly butted joints.

**OVER WOOD & CONCRETE FLOORS:** All PC Foamglas Insulation over wood and concrete floors shall be firmly embedded in hot asphalt and shall be laid progressively as the hot asphalt is mopped on the floor. Avoid mopping large areas that cannot be covered with insulation before the hot asphalt cools. When more than one layer is used, the additional layers shall be laid in the same manner as the first.

### LAYING ASPHALT SATURATED FELTS:

After PC Foamglas is laid, mop on a layer of 15-pound asphalt saturated felt with hot asphalt. When mopping the insulation and before the felt is laid, the hot asphalt shall be slushed into and fill all joints.

### WEARING FLOOR:


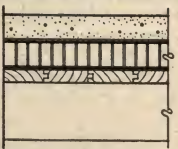
Install a reinforced monolithic concrete floor .... inches thick (3" minimum) over the insulation.

The concrete shall be mixed to the following proportions by volume: 1 part Portland cement—2 parts clean, sharp sand—3 parts gravel.

Reinforce the concrete slabs with .... inch bars .... inch O.C., each way (or No. .... gauge welded wire mesh .... inch O.C., each way).

## HEAT TRANSMISSION "U" THROUGH VARIOUS TYPES OF FLOORS

(U) VALUES ARE EXPRESSED IN B. T. U. PER SQ. FT. PER DEG. FAHR. TEMP. DIFFERENCE PER HOUR. CONDITIONS ASSUMED: MEAN TEMP. 50 DEG. FAHR. STILL AIR CONDITIONS BOTH SIDES.

FLOORS ABOVE GROUND WITH 3" CONCRETE WEARING FLOOR								
FLOOR TYPE	CONSTRUCTION	IDENTITY	UNINSULATED (WEARING FLOOR NOT INCLUDED)	INSULATED WITH FOAMGLAS (WEARING FLOOR INCLUDED)				
				2"	3"	4"	5"	6"
CONCRETE		A	.68	.15	.11	.085	.070	.060
3" CONCRETE		B	.65	.15	.11	.085	.070	.060
4" CONCRETE		C	.62	.15	.11	.084	.070	.059
5" CONCRETE		D	.59	.14	.11	.084	.069	.059
6" CONCRETE		E	.56	.14	.105	.083	.069	.059
7" CONCRETE		F	.54	.14	.104	.083	.068	.058
8" CONCRETE								
WOOD		G	.35	.12	.094	.076	.064	.055
1½" WOOD		H	.31	.12	.091	.074	.063	.054
2" WOOD		J	.22	.103	.082	.068	.058	.051
3" WOOD								

**NOTE:** Nominal thicknesses of wood floors are shown. Actual thicknesses have been used to determine "U" value.

Calculations for wood floors are based on yellow pine or fir.



# PC FOAMGLAS... *the permanent insulation*



## Avoid Costly Replacements

First cost is last cost when you insulate with PC Foamglas. Being waterproof, fireproof and verminproof, PC Foamglas automatically solves the three main problems encountered in insulating jobs. For a material that becomes wet and soggy, one that burns readily, or one that provides food and nesting room for rodents and destructive insects cannot do a satisfactory job over the years. So, when you consider insulation costs on a long-term basis, you will find that the *permanent* insulation, PC Foamglas will cost you the least money per annum.

## Special Insulation Problems

Your building, like many others, may present unusual insulating problems. Our insulation engineers will be glad to consult with you, to find out just how and where you can use Foamglas to the best advantage. Additional engineering data, specifications and details for installing PC Foamglas for customary uses on roofs, in corewalls and floors will be furnished upon request.

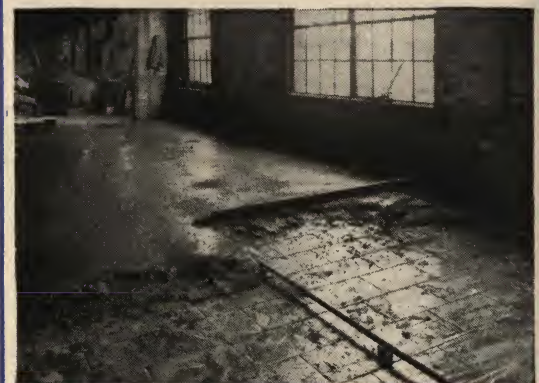
**When you insulate with FOAMGLAS . . . you insulate for good!**



Weight is often an important factor when large areas of roofs and ceilings in existing buildings need insulation. No structural reinforcements are needed to carry the additional load when PC Foamglas is installed.



Big rigid blocks of PC Foamglas support their own weight in all types of corewall construction. They stay in place, do not swell, shrink or pack down. Wall ties can be run from backing to facing, right through the insulating material, as PC Foamglas is easily pierced by a trowel.



The crushing strength of PC Foamglas enables it to carry floor loads much heavier than normal. Installed under a concrete floor to reduce heat travel out of a building or between stories, PC Foamglas has withstood the most rigid tests for impact, has supported dead-weight loads up to 2600 lbs. per square foot, without any damage to the material.

P I T T S B U R G H C O R N I N G C O R P O R A T I O N

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